APPLICATION FOR APPROVAL OF RESEARCH PROJECT INVOLVING RECOMBINANT DNA

Name and title of principal investigator: - Joshua Lederberg, Chairman & Professor of Genetics

Department: - Genetics

Title of project: - Genetics of Bacteria

Research support (agency and grant number): - NIH 5 RO1 CA16896-18

Purpose of project: 1) To understand factors regulating expression of bacterial DNA in another host
2) To clarify the mechanism of genetic transformation

Source of DNA to be cloned:

1. Species Bacillus subtilis ; E. coli K-2 (non pathogenic bacteria only)
   B. subtilis PHAGE phi-3-t (a small genome) for most expts.
2. Organ or tissue, if relevant
3. Extrachromosomal or organellar genome, if relevant

Degree of purification of donor DNA (eg. shotgun cloning of total DNA, prior purification of organelle, purification of CCC DNA by cesium chloride-ethidium bromide centrifugation, cDNA made from RNA, etc.):
Variety of methods. Usually gel electrophoresis banding which affords substantial but not total purification.

Assay for purity (if relevant to the containment level proposed):

Vector(s): mini-colE1 lambda psc101 phi-3-t

Recipient species (and strain if relevant) (eg. E. coli C600, X1776, B. subtilis, etc.):
E. coli K-12 B. subtilis

Level of containment proposed for project: P2-EK1 for routine experiments on pre-isolated clones
P3-EK1 or P2-EK2 (new vectors) for any new 'shotgun' efforts, pending resolution of the applicability of this requirment for the present cases

Physical containment level currently available for use:
P2. P3-modfication of a laboratory is in progress. (We are also enquiring about borrowing use of other facilities.)

Section of NIH Guidelines relevant to proposed containment level:
page 35 "Prokaryotes that do not exchange genetic information with E. coli"
(We are still investigating this criterion; and are uncertain whether it was really intended to apply to B. subtilis --> E. coli K-12)

Project personnel (names, titles, and responsibilities)

Joshua Lederberg, Chairman & Professor
Stanislav Ehrlich, Research Associate
Hela Pettegrew, Senior Research Assistant
Peter Evans, Lab Technician
Jerry Feitelson, Graduate Student
Grace Chi, Postdoctoral Fellow
Iwona Stroynowski, Graduate Student
Maria Contreas, YOP Student
Hung Pham, Lab Technician

Have all laboratory personnel working on project received instruction in appropriate containment procedures?

yes

Are all professional personnel familiar with the NIH Guidelines?

yes

Check one:

(✓) 1. The recombinant DNA molecules described above have already been constructed.

( ) 2. Construction of the recombinant DNA molecules described above is proposed.

Comments:

I agree to abide by the provisions of the NIH Guidelines for recombinant DNA molecules and that the recombinant DNA molecules being used will not be transferred to other investigators or institutions unless their facilities and techniques have been assured to be adequate, and a new MUA is executed by them and submitted to the NIH prior to the initiation of experiments.

NOV 10 1976
Date

Joshua Lederberg
Principal Investigator